

BLACK WARRIOR & TOMBIGBEE RIVERS, ALABAMA

JOHN HOLLIS BANKHEAD LOCK AND DAM

CONDITION OF IMPROVEMENT ON 30 SEPTEMBER 1997

Existing Project: The existing project provides for a concrete non-overflow section on the right bank, a gated spillway in the river channel, and a double lift lock on the left bank (which is obsolete, no longer used, and has been plugged). Modifications for this project provide for stabilization of the spillway by installing post-tensioned steel anchors on about 5.5 foot centers in the gallery and through the piers and aeration on the downstream face of the sill, raising the spillway bridge 15.31 feet and the nonoverflow section to elevation 270.0 national geodetic vertical datum, a single lift lock in the left bank and a concrete, rock, and earth dam extending from the river wall of the new lock across the old lock chambers to the existing spillway. The gated spillway has twenty 40 foot vertical lift gates and two 21.25 foot vertical lift gates. The new lock has chamber dimensions of 110 x 600 feet, a lift of 68 feet and a depth of 14 feet over the miter sills. The lake created by this dam, extends from the lock 42.7 miles up Locust Fork, 64.5 miles up Mulberry Fork, and 65.3 miles up Sipsey Fork. It has a 9 x 200 foot navigation channel extending the full length on each fork, an area of 9,245 acres, and a capacity of 269,215 acre feet at normal pool elevation 255.0. A powerhouse was constructed by and is operated by the Alabama Power Company on the downstream side of the non-overflow section on the right bank.

The existing project was authorized under provisions of the River and Harbor Act approved 3 March 1909 which grants the Secretary of War (now Secretary of the Army) discretionary authority to reconstruct obsolete navigation structures subject to consideration and approval by the Board of Engineers for Rivers and Harbors and the Chief of Engineers. Construction of the new lock was authorized by the Secretary of the Army 19 September 1966.

Progress: The original project was completed in 1915. Rehabilitation of the spillway completed in 1970. Replacement of the double lift lock with single lift lock was essentially completed in Fiscal year 1980. The single lift was opened to navigation in June 1975.

Cost of Construction: Original project completed in 1915 \$3,824,859. Rehabilitation of spillway \$3,347,580. Construction of new lock \$52,292,880. (Exclusive of cost for recreational facilities.)

Acreage Acquired: 7,408.